Appl. No. 10/717,346
Amdt. dated June 13, 2007
Reply to Office Action of February 13, 2007

<u>PATENT</u>

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A service executing method employing a plurality of devices and a server which manages the devices to permit ~~one or more of~~ the plurality of devices to ~~provide~~ carry out services in coordination with one another, the method comprising:

prompting the user to select a service from a provided service menu;

acquiring a service logic where specifications for implementing the selected service are described;

selecting devices having functions required for carrying out the service based on the service logic according to profile information;

acquiring the right to use the selected functions, wherein the right to use a function prevents a user from using the function when another user is registered to use that same function;

generating a group encryption key that is common to the devices that carry out the service in coordination with one another and that is used for encrypting data transmitted or received by the plurality of devices when the devices carry out the service in coordination with one another;

extracting service components involving configuration information for the ~~necessary~~ functions for carrying out the service ~~based on~~ from the service logic;

generating adaptors ~~from~~ that contain the extracted service components, a service identifier, and the group encryption key; and

delivering the generated adaptors to the devices which are to carry out the service; and

receiving the adaptors to carry out the service according to information in the adaptors.

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2. (Canceled)

3. (Original) The method according to claim 1 further comprising authenticating the user when the user makes access and selects functions.

4. (Original) The method according to claim 1 wherein with respect to the devices' own embedded functions, the devices manage function types for identifying the functions in common and the attributes of the functions.

5. (Original) The method according to claim 4 wherein with respect to the devices under the control of a server, the server manages addresses for accessing the devices, context information on position, right to use, the function types notified from the devices, and the attributes.

6. (Original) The method according to claim 1 wherein the server manages service users, service management numbers, the identifiers of presently used functions, the identifiers of functions which can be used in the service, and the group encryption key.

7. (Original) The method according to claim 1 wherein the service components contain information on the functions as the targets of setting, programs to be downloaded to the devices having the functions, and the details of connection setting for the application interfaces of the functions and the programs.

8. (Canceled)

9. (Original) The method according to claim 1 wherein the devices transmit and receive the data.

10. (Original) The method according to claim 1 further comprising:
requesting the server to change the function to be used with the service identification number of the currently used service and the group encryption key for use in the service attached to the request;

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verifying whether the service identification number and the group encryption key are matched with those registered;

determining whether there is conflict in use of the function the change to which is requested;

inquiring of the present holder of the right to use about transfer of the right to determine whether the right to use is transferable if there is conflict,

searching for another function if the right to use is not transferable and request to change the function again;

acquiring the right to use if transferable; and

updating the group encryption key, generating the messages again, and delivering the messages to the devices.

11.   (Currently amended) A service providing system employing a plurality of devices and a server which manages the devices to permit ~~one or more of a~~ the plurality of ~~the~~ devices to ~~provide~~ carry out services in coordination with one another, wherein the device used by a user among the plurality of devices has

a unit which prompts the user to select a service from a provided service menu and acquires a service logic where specifications for implementing the selected service are described; wherein the server has

a unit which selects devices having functions required for carrying out the service based on the service logic according to profile information;

a unit which acquires the right to use the selected functions, wherein the right to use a function prevents a user from using the function when another user is registered to use that same function;

a unit which generates a group encryption key that is common to the devices that carry out the service in coordination with one another and that is used for encrypting data transmitted or received by the plurality of devices when the devices carry out the service in coordination with one another;

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a unit which extracts service components involving configuration information for the <u>necessary</u> functions <u>for carrying out the service</u> ~~based on~~ <u>from</u> the service logic;

a unit which generates adaptors ~~from~~ <u>that contain</u> the extracted service components<u>, a service identifier, and the group encryption key</u>; and

a unit which delivers the generated adaptors to the devices which are to carry out the service; and wherein the devices which are to carry out the service comprise

a unit which receives the adaptor from the server and carries out the service according to information in the adaptor.

12.   (Currently amended) A processing program <u>embodied in a computer readable medium</u> for a server in a service providing system employing a plurality of devices, ~~and~~ the server ~~which manages~~ <u>managing</u> the <u>plurality of</u> devices to permit ~~one~~<u>two</u> or more of ~~a plurality of~~ the devices to ~~provide~~<u>carry out</u> services in coordination with one another, wherein the program comprises:

a program for selecting devices having functions required for carrying out a service based on a service logic wherein specifications for implementing the service selected by a user from a service menu according to profile information;

a program for acquiring the right to use the selected functions<u>, wherein the right to use a function prevents a user from using the function when another user is registered to use that same function</u>;

<u>a program for generating a group encryption key that is common to the devices that carry out the service in coordination with one another and that is used for encrypting data transmitted or received by the plurality of devices when the devices carry out the service in coordination with one another;</u>

a program for extracting service components involving configuration information for the <u>necessary</u> functions <u>for carrying out the service</u> ~~based on~~ <u>from</u> the service logic;

a program for generating adaptors <u>that contain</u> ~~from~~ the extracted service components<u>, a service identifier, and the group encryption key</u>; and

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a program for delivering the generated adaptors to the devices which are to carry out the service.

13.　(New) The method according to claim 1, wherein the selecting step further comprises selecting devices within an authority of the user after the user has been authenticated to the server.

14.　(New) The method according to claim 1, wherein the service logic includes a graphic representation of a relation between functional units and programs, and the functional units include conditions of function types to be found and selection conditions for selecting relevant functions.

15.　(New) The method according to claim 1, wherein the service component includes a function as the target of setting, a downloaded function as the program to be downloaded, and a functional relation as information on the configuration of coordination between functions.

16.　(New) The method according to claim 1, wherein the server updates the group encryption key corresponding to an updated group of devices for carrying out the service if the group of the devices is updated.